The first European record of *Xeromphalina campanelloides* (*Tricholomataceae*) from Austria

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Abstract: The first European record of *Xeromphalina campanelloides* from Carinthia (Austria) was discovered in the Herbarium IB (Universität Innsbruck) during the preparation of a European monograph of the genus *Xeromphalina*. Its detailed description, taxonomic notes, comments on its distribution and a colour photograph are given.

Zusammenfassung: Der erste europäische Herbarbeleg von *Xeromphalina campanelloides* wurde im Herbarium IB (Universität Innsbruck) während der Vorbereitung einer europäischen Monographie der Gattung *Xeromphalina* entdeckt. Diese Pilzart wurde in Kärnten (Österreich) gefunden. Eine genaue Beschreibung, taxonomische Bemerkungen, Kommentare zur Verbreitung und eine Farbfotografie werden gegeben.

The genus *Xeromphalina* KÜHNER & MAIRE is a rather small genus in Europe with about 10 taxa. Some of them were recognized in Europe for the first time only recently (ANTONÍN 2000, REDHEAD 1988). A few studies or keys of this genus were already published by, e.g., BON (1999), KLÁN (1984), and MOSER (1983), but until now, no monographic study was made [ANTONÍN & NOORDELOOS unpubl.: A monograph of tribus *Myceneae* (*Mycena* excl.) in Europe].

During the preparation of this European monograph, some interesting new facts were discovered. One of them is the first record of *Xeromphalina campanelloides* REDHEAD in Europe.

The macroscopic description given below is according to the notes made by M. MOSER. Microscopical features are described from material examined, mounted in Melzer's reagent, Congo-red, H_2O, and KOH. For the basidiospores the following abbreviations are used: E (quotient of length and width in any one spore); Q (mean of E-values). Authors of fungal names are cited according to KIRK & ANSELL (1992).

***Xeromphalina campanelloides* REDHEAD 1988,** Canad. J. Bot. **66**: 488. (Colour fig. X, Fig. 1)

Description of the Austrian collection:

Pileus: 4-12 mm broad, convex with depressed to umbilicate centre, striate up to 2/3 of diameter, bright yellow-brown (RIDGWAY 1912: XV Russatz), with translucently striate and paler margin (Antimon yellow to Yellow ocher).

Lamellae: moderately close, L = 16-20, l = 1-3, decurrent, narrow (1-1.5 mm), yellow (RIDGWAY 1912: XVI Mustard yellow), venose-anastomosing at base.

Stipe: 20-30(-40) x 0.8-1.2 mm, finely floccose-pruinose, apex yellowish, blackish brown towards base; with not strongly developed dark yellow basal mycelial tomentum.

Context: with indistinct smell and bitter taste.

Spores: 5.5-6.5 x 3.0-3.7 µm, E = 1.6-2.0, Q = 1.8, ellipsoid, broadly ellipsoid, thin-walled, smooth, hyaline, amyloid.

Basidia: 21-27 x 5.0-6.5 µm, 4-spored, clavate. Basidioles: 13-30 x 2.5-6.0 µm, clavate to cylindrical.

Cheilocystidia: 24-50 x 3.5-5.0 µm, cylindrical to narrowly clavate, mostly irregular to coralloid, rarely simple, ± thin-walled, hyaline.

Hyphae of trama: cylindrical, thin- and thick-walled, smooth to mostly incrusted, non-dextrinoid, up to 10 µm wide, with red-brown incrustation in KOH.

Pileipellis: a cutis of radially arranged, cylindrical, thin- to slightly thick-walled, smooth or incrusted, 2-6 µm wide hyphae, sometimes with scattered diverticulae, subhyaline in KOH. Subpellis: with distinctly red-brown pigmented hyphae in KOH. Circumcystidia: infrequent, 25-64 x 3.5-6.5 µm, subcylindrical, with cylindrical, obtuse, irregular to coralloid lateral projections, thin- to slightly thick-walled.

Stipitipellis: a cutis of parallel, cylindrical, thick-walled (up to 1.5 µm), up to 7.0 µm wide hyphae, subhyaline to pale yellow in KOH at apex, orange-brown in lower parts. Stipititrama: of 3.0-10.0 µm wide, thin- and thick-walled hyphae, distinctly incrusted by orange-red to red-brown pigmentation in KOH. Caulocystidia: numerous, 35-88(-140) x 5.0-13 µm, cylindrical, clavate, subfusoid, mostly irregular to coralloid, thin- to slightly thick-walled and pale orange-yellow at apex, thick-walled and orange-brown in lower part.

Ecology: On needles of conifers.

Locality: Austria: Kärnten, above Treimischerteich near Viktring, 20. 9. 1966, leg. M. MOSER (IB 66/211).

Comments:

The carpophores of *Xeromphalina campanelloides* remind of young specimens of *X. campanella* (BATSCH: FR.) KÜHNER & MAIRE. However, the taxon described here especially differs in having ± collybioid carpophores, bitter taste, smaller spores, incrusted tramal hyphae turning orange- to red-brown in KOH, and differently shaped cystidia. A very similar taxon is *X. cauticinalis* (FR.) KÜHNER & MAIRE var. *subfellea* BON [= *X. cauticinalis* subsp. *pubescentipes* (PECK) REDHEAD] which also has a bitter taste, similar cystidia and colour reaction of the incrustations in KOH. However, that variety has omphalioid carpophores, larger spores, longer, not curved stipes and infrequently branched, at the apex more distinctly thick-walled cheilocystidia.

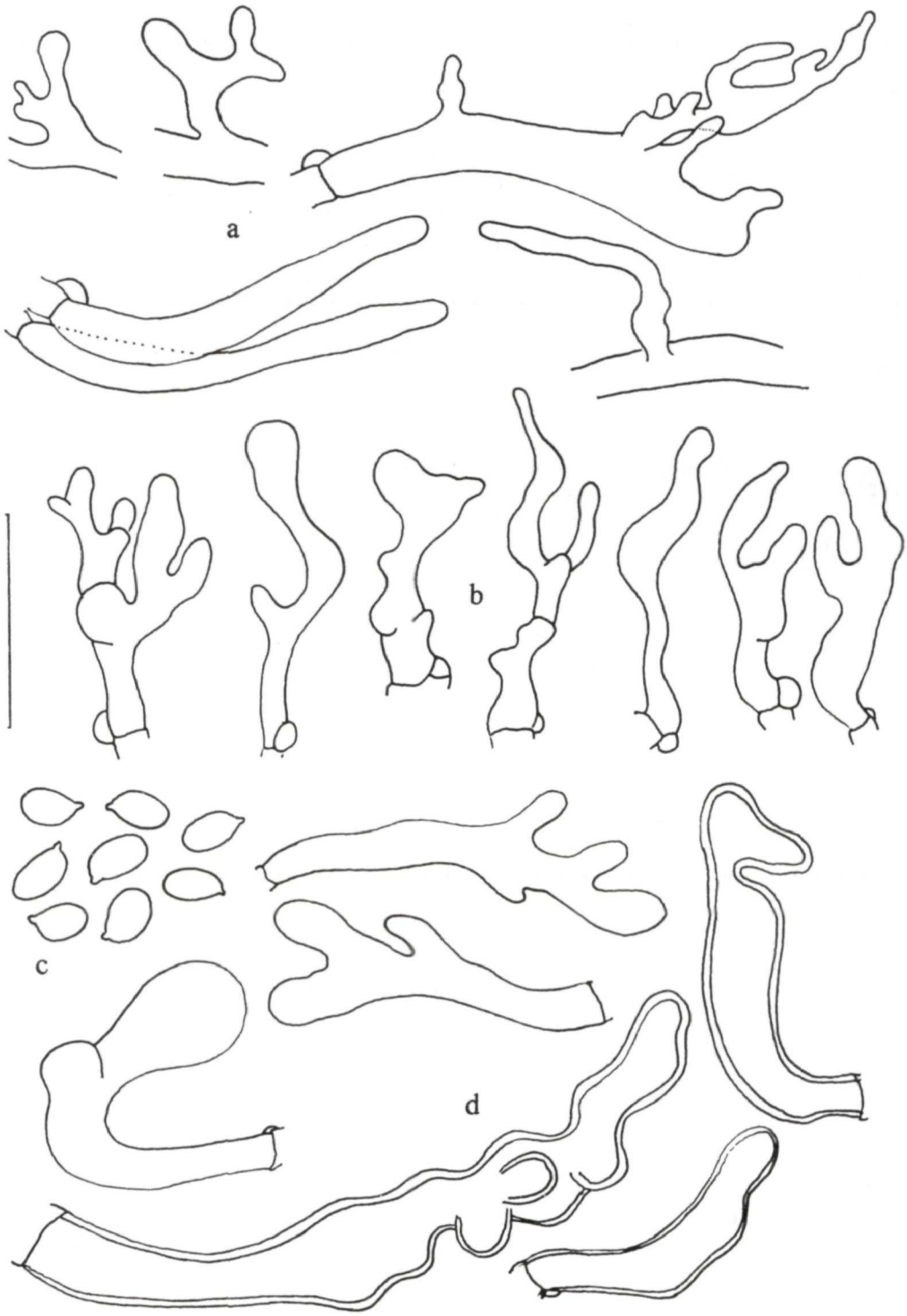

Fig. 1. *Xeromphalina campanelloides*. *a* circumcystidia, *b* cheilocystidia, *c* spores, *d* caulocystidia at apex (thin-walled) and towards base (thick-walled). Bar: 20 µm.

Xeromphalina campanelloides was described from Canada (REDHEAD 1988) and has also been found in the USA. REDHEAD (1988) mentioned the above described Austrian collection as very similar to *X. campanelloides* but with different stipe shape (non-curved stipe) and habitat (on litter, not on wood). However, a colour photograph of this collection made by M. MOSER showed that about a half of the carpophores have curved stipes. Only a small difference in habitat (litter/wood) is not a base for describing it as a new infraspecific taxon (as proposed by REDHEAD). Therefore, I consider this Austrian collection to be a typical *X. campanelloides*.

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Colour plate X. *Xeromphalina campanelloides* (IB 66/211). – Phot. M. MOSER.

Farbige Abb. XI. *Entoloma callichroum* (WU 18534). – Phot. A. HAUSKNECHT.